## SEQUENCE LISTING

<110> Hiroshi MORI

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<130> GP59-PCT

<150> JP 2002-121983

<151> 2002-04-14

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<213> Homo sapiens

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Lys

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<212> PRT

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														att		192	
Asn		Lys	Trp	Asp	Ser		Pro	Ser	GIY	ınr		Inr	Cys	He	Asp		
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acc	aag	gaa	ggc	atc	ctg	cag	tat	tgc	caa	gaa	gtc	tac	cct	gaa	ctg	240	
Thr	Lys	Glu	Gly	He	Leu	Gln	Tyr	Cys	Gln	Glu	Val	Tyr	Pro	Glu	Leu		
65					70					75	٠				80		
000	atc	200	aat	ata	σta	ແລລ	gcc.	220	caa	cca	σtσ	acc	atc	cag	aac	288	
														Gln			
<b>4</b> 111	110	••••	,,,,,	85	,	-,-			90					95			
				00													
														***	~+~	226	
															gtg Val	336	
ırp	Uys	Lys			Arg	Lys	um		Ly8	1131	1115	FIU	110	Phe	Vai		
			100					105					110				
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He	Pro	Tyr	Arg	Cys	Leu	Val	Gly	Glu	Phe	Val	Ser			Leu	Leu		
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gtt	cct	gac	aag	tgc	aaa	ttc	tta	cac	cag	gag	agg	atg	gat	gtt	tgc	432	
Val	Pro	Asp	Lys	Cys	Lys	Phe	Leu	His	Gln	Glu	Arg	Met	Asp	Val	Cys		
	130					135					140						
ฮลล	act	cat	ctt	cac	†øø	cac	acc	gtc	gcc	aaa	gag	aca	tgc	agt	gag	480	į
															Glu		
145					150					155					160		
. 10					. • •												
aag	agt	acc	aac	ttg	cat	gac	tac	ggc	atg	ttg	ctg	CCC	tgc	gga	att	528	ı

Lys	Ser	Thr	Asn	Leu 165	His	Asp	Tyr	Gly	Met 170	Leu	Leu	Pro	Cys	Gly 175	He	
					gta Val											576
					tct Ser											624
					gac Asp							Ser				672
					gag Glu 230	Glu					Glu				gaa Glu 240	720
					Glu					Gly					gaa Glu	768
				Pro					Thr					Ser	att He	816
			Thr					Glu					Val		cga Arg	864

-								•					aag Lys			912
Yaı	290	•••	.,.,	λ, α	, ru	295	••••	., •	Мор	=	300	,,,,	_, -	.,.		
													aaa			960
Glu	Thr	Pro	Gly	Asp	Glu	Asn	Glu	His	Ala	His	Phe	Gln	Lys	Ala	Lys	
305					310					315					320	
gag	agg	ctt	gag	gcc	aag	cac	cga	gag	aga	atg	tcc	cag	gtc	atg	aga	1008
Glu	Arg	Leu	Glu	Ala	Lys	His	Arg	Glu	Arg	Met	Ser	Gln	Val	Met	Arg	
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gaa	tgg	gaa	gag	gca	gaa	cgt	caa	gca	aag	aac	ttg	cct	aaa	gct	gat	1056
Glu	Trp	Glu	Glu	Ala	Glu	Arg	Gln	Ala	Lys	Asn	Leu	Pro	Lys	Ala	Asp	
			340					345					350			
aag	aag	gca	gtt	atc	cag	cat	ttc	cag	gag	aaa	gtg	gaa	tct	ttg	gaa	1104
Lys	Lys	Ala	Val	lle	Gln	His	Phe	Gln	Glu	Lys	Val	Glu	Ser	Leu	Glu	
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cag	gaa	gca	gcc	aac	gag	aga	cag	cag	ctg	gtg	gag	aca	cac	atg	gcc	1152
Gln	Glu	Ala	Ala	Asn	Glu	Arg	Gln	Gln	Leu	Val	Glu	Thr	His	Met	Ala	
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aga	gtg	gaa	gcc	atg	ctc	aat	gac	cgc	cgc	cgc	ctg	gcc	ctg	gag	aac	1200
_													Leu			
385					390					395					400	
tac	atc	acc	gct	ctg	cag	gct	gtt	cct	cct	cgg	cct	cgt	cac	gtg	ttc	1248

Tyr	lle	Thr	Ala		Gln	Ala	Val	Pro	Pro	Arg	Pro	Arg	His	Val 415	Phe	
				405					410					413		
									gaa							1296
Asn	Met	Leu	Lys 420	Lys	Tyr	vai	Arg	425	Glu	uin	Lys	ASP	430	uiii	піъ	
						4	~+~	272	o+ a	at a	got	000	ооп	222	acc	1344
									atg Met							1044
••••		435					440					445				
øct	Cag	atc	Caa	tec	Cag	øtt	atg	aca	cac	ctc	cgt	gtg	att	tat	gag	1392
									His							
	450					455					460					
														_4		1440
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465	MEL	ASII	uiii	361	470		Lou	Lou	1 91	475			π, α	,	480	
700					170					•••						
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Glu	Glu	He	Gln	Asp	Glu	Val	Asp	Glu	Leu	Leu	GIn	Lys	Glu		Asn	
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															acc	1584
Tyr	Gly	Asn	Asp	Ala	Leu	Met			Leu	Thr	Glu			Thr	Thr	
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									gtg Val							1680
									gct Ala 570							1728
	_			Ser					atc Ile					He		1776
			Met					Arg	cat His				Tyr			1824
		Gln					Phe		gaa Glu			Gly				1872
						Met			ggt Gly		Val					1920
atc	gtc	atc	acc	ttg	gtg	atg	ctg	aag	aag	aaa	cag	tac	aca	tcc	att	1968

He	Val	He	Thr	Leu	Val	Met	Leu	Lys	Lys	Lys	GIn	Tyr	Thr	Ser	He	
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cat	cat	øøt	σtσ	σtσ	gag	øtt	gac	gcc	øct	σtc	acc	cca	σασ	gag	CGC	2016
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1115	1115	чіу	vai	vai	uiu	vai	ASP	Ala	на	vai	HII	Pro	uıu	uıu	Arg	
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ttc ttt gag cag atg cag aac tag

Phe Phe Glu Gln Met Gln Asn
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685

His Leu Ser Lys Met Gln Gln Asn Gly Tyr Glu Asn Pro Thr Tyr Lys

680

<210> 7

<211> 695

<212> PRT

<213> Homo sapiens

675

<400> 7

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- Asn Gly Lys Trp Asp Ser Asp Pro Ser Gly Thr Lys Thr Cys Ile Asp
  50 55 60
- Thr Lys Glu Gly IIe Leu Gln Tyr Cys Gln Glu Val Tyr Pro Glu Leu 65 70 75 80
- Gin lie Thr Asn Val Val Giu Ala Asn Gin Pro Val Thr lie Gin Asn 85 90 95
- Trp Cys Lys Arg Gly Arg Lys Gln Cys Lys Thr His Pro His Phe Val
- Ile Pro Tyr Arg Cys Leu Val Gly Glu Phe Val Ser Asp Ala Leu Leu 115 120 125
- Val Pro Asp Lys Cys Lys Phe Leu His Gln Glu Arg Met Asp Val Cys 130 135 140
- Glu Thr His Leu His Trp His Thr Val Ala Lys Glu Thr Cys Ser Glu 145 150 155 160
- Lys Ser Thr Asn Leu His Asp Tyr Gly Met Leu Leu Pro Cys Gly IIe 165 170 175
- Asp Lys Phe Arg Gly Val Glu Phe Val Cys Cys Pro Leu Ala Glu Glu
  180 185 190
- Ser Asp Asn Val Asp Ser Ala Asp Ala Glu Glu Asp Asp Ser Asp Val

		195					200					205			
Trp	Trp 210	Gly	Gly	Ala	Asp	Thr 215	Asp	Tyr	Ala	Asp	Gly 220	Ser	Glu	Asp <sup>*</sup>	Lys
Va I 225	Val	Glu	Val	Ala	GI u 230	Glu	Glu	Glu	Val	Ala 235	Glu	Val	Glu	Glu	G1u 240
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Glu	Ala	Glu	GIu 260	Pro	Tyr	Glu	Glu	Ala 265	Thr	Glu	Arg	Thr	Thr 270	Ser	He
Ala	Thr	Thr 275	Thr	Thr	Thr	Thr	Thr 280	Glu	Ser	Val	Glu	GI u 285	Val	Val	Arg
Val	Pro 290	Thr	Thr	Ala	Ala	Ser 295	Thr	Pro	Asp	Ala	Va I 300	Asp	Lys	Tyr	Leu
Glu 305	Thr	Pro	Gly	Asp	Glu 310	Asn	Glu	His	Ala	His 315	Phe	Gin	Lys	Ala	Lys 320
Glu	Arg	Leu	Glu	Ala 325	Lys	His	Arg	Glu	Arg 330	Met	Ser	GIn	Val	Met 335	Arg
Glu	Trp	Glu	GIu 340	Ala	Glu	Arg	GIn	Ala 345	Lys	Asn	Leu	Pro	Lys 350	Ala	Asp

Lys Lys Ala Val IIe Gln His Phe Gln Glu Lys Val Glu Ser Leu Glu

365

360

355

GIn	Glu	Ala	Ala	Asn	Glu	Arg	Gln	Gln	Leu	Val	Glu	Thr	His	Met	Ala
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Arg Val Glu Ala Met Leu Asn Asp Arg Arg Arg Leu Ala Leu Glu Asn 385 390 395 400

Tyr lle Thr Ala Leu Gln Ala Val Pro Pro Arg Pro Arg His Val Phe 405 410 415

Asn Met Leu Lys Lys Tyr Val Arg Ala Glu Gln Lys Asp Arg Gln His
420 425 430

Thr Leu Lys His Phe Glu His Val Arg Met Val Asp Pro Lys Lys Ala 435 440 445

Ala Gln lle Arg Ser Gln Val Met Thr His Leu Arg Val lle Tyr Glu 450 455 460

Arg Met Asn Gln Ser Leu Ser Leu Leu Tyr Asn Val Pro Ala Val Ala 465 470 475 480

Glu Glu lle Gln Asp Glu Val Asp Glu Leu Leu Gln Lys Glu Gln Asn 485 490 495

Tyr Ser Asp Asp Val Leu Ala Asn Met IIe Ser Glu Pro Arg IIe Ser 500 505 510

Tyr Gly Asn Asp Ala Leu Met Pro Ser Leu Thr Glu Thr Lys Thr Thr
515 520 525

- Val Glu Leu Leu Pro Val Asn Gly Glu Phe Ser Leu Asp Asp Leu Gln 530 535 540
- Pro Trp His Ser Phe Gly Ala Asp Ser Val Pro Ala Asn Thr Glu Asn 545 550 555 560
- Glu Val Glu Pro Val Asp Ala Arg Pro Ala Ala Asp Arg Gly Leu Thr
  565 570 575
- Thr Arg Pro Gly Ser Gly Leu Thr Asn IIe Lys Thr Glu Glu IIe Ser 580 590
- Glu Val Lys Met Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val 595 600 605
- His His Gln Lys Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys 610 620
- Gly Ala Ile Ile Gly Leu Met Val Gly Gly Val Val Ile Ala Thr Val 625 630 635 640
- Ile Val Ile Thr Leu Val Met Leu Lys Lys Gln Tyr Thr Ser Ile 645 650 655
- His His Gly Val Val Glu Val Asp Ala Ala Val Thr Pro Glu Glu Arg 660 665 670
- His Leu Ser Lys Met Gln Gln Asn Gly Tyr Glu Asn Pro Thr Tyr Lys
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Phe Phe Glu Gln Met Gln Asn

690 695

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gcg ctg gag gta ccc act gat ggt aat gct ggc ctg ctg gct gaa ccc 96
Ala Leu Glu Val Pro Thr Asp Gly Asn Ala Gly Leu Leu Ala Glu Pro
20 25 30

cag att gcc atg ttc tgt ggc aga ctg aac atg cac atg aat gtc cag

144

GIn IIe Ala Met Phe Cys Gly Arg Leu Asn Met His Met Asn Val Gln

35

40

45

aat ggg aag tgg gat toa gat oca toa ggg acc aaa acc tgc att gat

192
Asn Gly Lys Trp Asp Ser Asp Pro Ser Gly Thr Lys Thr Cys IIe Asp
50
55
60

acc aag gaa ggc atc ctg cag tat tgc caa gaa gtc tac cct gaa ctg

Thr Lys Glu Gly Ile Leu Gln Tyr Cys Gln Glu Val Tyr Pro Glu Leu

65 70 75 80

cag	atc	acc	aat	gtg	gta	gaa	gcc	aac	caa	cca	gtg	acc	atc	cag	aac	288
GIn	lle	Thr	Asn	Val 85	Val	Glu	Ala	Asn	GIn 90	Pro	Val	Thr	lle	GIn 95	Asn	
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Trp	Cys	Lys	Arg 100	Gly	Arg	Lys	GIn	Cys 105	Lys	Thr	His	Pro	His 110	Phe	Val	
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He	Pro	Tyr 115	Arg	Cys	Leu	Val	Gly 120		Phe	Val	Ser	Asp 125	Ala	Leu	Leu	
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Val	Pro 130	Asp	Lys	Cys	Lys	Phe 135	Leu	His	GIn	Glu	Arg 140	Met	Asp	Val	Cys	
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GI u 145	Thr	His	Leu	His	Trp 150	His	Thr	Val	Ala	Lys 155	Glu	Thr	Cys	Ser	GIu 160	
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Lys	Ser	Thr	Asn	Leu 165	His	Asp	Tyr	Gly	Met 170	Leu	Leu	Pro	Cys	Gly 175	lle	
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agt	gac	aat	gtg	gat	tct	gct	gat	gcg	gag	gag	gat	gac	tcg	gat	gtc	624
Ser	Asp	Asn 195	Val	Asp	Ser	Ala	Asp 200	Ala	Glu	Glu	Asp	Asp 205	Ser	Asp	Val	
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Trp	Trp 210	Gly	Gly	Ala	Asp	Thr 215	Asp	Tyr	Ala	Asp	Gly 220	Ser	Glu	Asp	Lys	
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Va I 225	Val	Glu	Val	Ala	GIu 230	Glu	Glu	Glu	Val	Ala 235	Glu	Val	Glu	Glu	Glu 240	
gaa	gcc	gat	gat	gac	gag	gac	gat	gag	gat	ggt	gat	gag	gta	gag	gaa	768
Glu	Ala	Asp	Asp	Asp 245	Glu	Asp	Asp	Glu	Asp 250	Gly	Asp	Glu	Val	Glu 255	Glu	
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Glu	Ala	Glu	GIu 260	Pro	Tyr	Glu	Glu	Ala 265	Thr	Glu	Arg	Thr	Thr 270	Ser	lle	
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Ala	Thr	Thr 275	Thr	Thr	Thr	Thr	Thr 280	Glu	Ser	Val	Glu	Glu 285	Val	Val	Arg	
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Glu	Va I 290	Cys	Ser	Glu	GIn	Ala 295	Glu	Thr	Gly	Pro	Cys 300	Arg	Ala	Met	lle	

tcc	cgc	tgg	tac	ttt	gat	gtg	act	gaa	ggg	aag	tgt	gcc	cca	ttc	ttt	960
	Arg	Trp	Tyr	Phe		Val	Thr	Glu	Gly		Cys	Ala	Pro	Phe	Phe 320	
305					310			-		315					320	
tac	ggc	gga	tgt	ggc	ggc	aac	cgg	aac	aac	ttt	gac	aca	gaa	gag	tac	1008
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		gcc														1030
Cys	Wet	Ala	340	Uys	ч	ser	АТА	345	Sei	um	361	Leu	350	Lys	1111	
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Thr	Gln	Glu	Pro	Leu	Gly	Arg			Val	Lys	Leu			Thr	Ala	
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	370					375					380					
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385					030					550						
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				405					410					415		

gaa	cgt	caa	gca	aag	aac	ttg	cct	aaa	gct	gat	aag	aag	gca	gtt	atc	12	96
Glu	Arg	Gln	Ala 420	Lys	Asn	Leu	Pro	Lys 425	Ala	Asp	Lys	Lys	Ala 430	Val	He		
cag	cat	ttc	cag	gag	aaa	gtg	gaa	tct	ttg	gaa	cag	gaa	gca	gcc	aac	13	44
GIn	His	Phe 435	Gln	Glu	Lys	Val	Glu 440	Ser	Leu	Glu	GIn	Glu 445	Ala	Ala	Asn		
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									Met								
ctc	aat	gac	cgc	cgc	cgc	ctg	gcc	ctg	gag	aac	tac	atc	acc	gct	ctg	14	40
Leu 465	Asn	Asp	Arg	Arg	Arg 470	Leu	Ala	Leu	Glu	Asn 475	Tyr	lle	Thr	Ala	Leu 480		
cag	gct	gtt	cct	cct	cgg	cct	cgt	cac	gtg	ttc	aat	atg	cta	aag	aag	14	88
Gln	Ala	Val	Pro	Pro 485	Arg	Pro	Arg	His	Va I 490	Phe	Asn	Met	Leu	Lys 495	Lys		
tat	gtc	cgc	gca	gaa	cag	aag	gac	aga	cag	cac	acc	cta	aag	cat	ttc	15	36
Tyr	Val	Arg	Ala 500	Glu	Gln	Lys	Asp	Arg 505	Gln	His	Thr	Leu	Lys 510	His	Phe		
gag	cat	gtg	cgc	atg	gtg	gat	ccc	aag	aaa	gcc	gct	cag	atc	cgg	tcc	15	84
Glu	His	Va I 515	Arg	Met	Val	Asp	Pro 520	Lys	Lys	Ala	Ala	GIn 525	He	Arg	Ser		

cag	gtt	atg	aca	cac	ctc	cgt	gtg	att	tat	gag	cgc	atg	aát	cag	tct	1632
GIn	Va I 530	Met	Thr	His	Leu	Arg 535	Val	lle	Tyr	Glu	Arg 540	Met	Asn	GIn	Ser	
ctc	tcc	ctg	ctc	tac	aac	gtg	cct	gca	gtg	gcc	gag	gag	att	cag	gat	1680
Leu 545	Ser	Leu	Leu	Tyr	Asn 550	Val	Pro	Ala	Val	Ala 555	Glu	Glu	lle	GIn	Asp 560	
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Val	Asn 610	GÌy	Glu	Phe	Ser	Leu 615	Asp	Asp	Leu	Gln	Pro 620	Trp	His	Ser	Phe	
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Asp	Ala	Arg	Pro	Ala 645	Ala	Asp	Arg	Gly	Leu 650	Thr	Thr	Arg	Pro	Gly 655	Ser	
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Ala	Glu	Phe 675	Arg	His	Asp	Ser	Gly 680	Tyr	Glu	Val	His	His 685	GIn	Lys	Leu	
gtg	ttc	ttt	gca	gaa	gat	gtg	ggt	tca	aac	aaa	ggt	gca	atc	att	gga	2112
Val	Phe 690	Phe	Ala	Glu	Asp	Val 695	Gly	Ser	Asn	Lys	Gly 700	Ala	lle	lle	Gly	
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	Met	Val	Gly	Gly		Val	lle	Ala	Thr		He	Val	He	Thr		
705					710					715					720	
gtg	atg	ctg	aag	aag	aaa	cag	tac	aca	tcc	att	cat	cat	ggt	gtg	gtg	2208
Val	Met	Leu	Lys	Lys	Lys	GIn	Tyr	Thr		He	His	His	Gly		Val	
				725					730					735		
gag	gtt	gac	gcc	gct	gtc	acc	cca	gag	gag	cgc	cac	ctg	tcc	aag	atg	2256
	Val															
			740					745					750			

cag cag aac ggc tac gaa aat cca acc tac aag ttc ttt gag cag atg
Gln Gln Asn Gly Tyr Glu Asn Pro Thr Tyr Lys Phe Phe Glu Gln Met
755 760 765

cag aac tag

2313

GIn Asn 770

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Gin Ile Ala Met Phe Cys Gly Arg Leu Asn Met His Met Asn Val Gln 35 40 45

Asn Gly Lys Trp Asp Ser Asp Pro Ser Gly Thr Lys Thr Cys Ile Asp 50 55 60

Thr Lys Glu Gly IIe Leu Gln Tyr Cys Gln Glu Val Tyr Pro Glu Leu 65 70 75 80

Gin He Thr Asn Val Val Glu Ala Asn Gin Pro Val Thr He Gin Asn 85 90 95

Trp Cys Lys Arg Gly Arg Lys Gln Cys Lys Thr His Pro His Phe Val

lle Pro Tyr Arg Cys Leu Val Gly Glu Phe Val Ser Asp Ala Leu Leu 115 120 125

Val Pro Asp Lys Cys Lys Phe Leu His Gln Glu Arg Met Asp Val Cys 130 135 140

Glu Thr His Leu His Trp His Thr Val Ala Lys Glu Thr Cys Ser Glu 145 150 155 160

Lys Ser Thr Asn Leu His Asp Tyr Gly Met Leu Leu Pro Cys Gly IIe 165 170 175

Asp Lys Phe Arg Gly Val Glu Phe Val Cys Cys Pro Leu Ala Glu Glu 180 185 190

Ser Asp Asn Val Asp Ser Ala Asp Ala Glu Glu Asp Asp Ser Asp Val 195 200 205

Trp Trp Gly Gly Ala Asp Thr Asp Tyr Ala Asp Gly Ser Glu Asp Lys
210
220

Val Val Glu Val Ala Glu Glu Glu Glu Val Ala Glu Val Glu Glu Glu 225 230 235 240

Glu Ala Asp Asp Glu Asp Glu Asp Glu Asp Glu Val Glu Glu 245 250 255

Glu Ala Glu Glu Pro Tyr Glu Glu Ala Thr Glu Arg Thr Thr Ser lle 260 265 270

Ala Thr Thr Thr Thr Thr Glu Ser Val Glu Glu Val Val Arg 275 280 285

Glu Val Cys Ser Glu Gln Ala Glu Thr Gly Pro Cys Arg Ala Met Ile 290 295 300

Ser Arg Trp Tyr Phe Asp Val Thr Glu Gly Lys Cys Ala Pro Phe Phe 305 310 315 320

Tyr Gly Gly Cys Gly Gly Asn Arg Asn Asn Phe Asp Thr Glu Glu Tyr 325 330 335

Cys Met Ala Val Cys Gly Ser Ala Met Ser Gln Ser Leu Leu Lys Thr 340 345 350

Thr Gln Glu Pro Leu Gly Arg Asp Pro Val Lys Leu Pro Thr Thr Ala 355 360 365 Ala Ser Thr Pro Asp Ala Val Asp Lys Tyr Leu Glu Thr Pro Gly Asp 370 375 380

Glu Asn Glu His Ala His Phe Gln Lys Ala Lys Glu Arg Leu Glu Ala 385 390 395 400

Lys His Arg Glu Arg Met Ser Gln Val Met Arg Glu Trp Glu Glu Ala 405 410 415

Glu Arg Gln Ala Lys Asn Leu Pro Lys Ala Asp Lys Lys Ala Val Ile 420 425 430

Gln His Phe Gln Glu Lys Val Glu Ser Leu Glu Gln Glu Ala Ala Asn 435 440 445

Glu Arg Gln Gln Leu Val Glu Thr His Met Ala Arg Val Glu Ala Met 450 455 460

Leu Asn Asp Arg Arg Leu Ala Leu Glu Asn Tyr Ile Thr Ala Leu 465 470 475 480

Gln Ala Val Pro Pro Arg Pro Arg His Val Phe Asn Met Leu Lys Lys 485 490 495

Tyr Val Arg Ala Glu Gln Lys Asp Arg Gln His Thr Leu Lys His Phe 500 505 510

Glu His Val Arg Met Val Asp Pro Lys Lys Ala Ala Gln Ile Arg Ser 515 520 525

- Gln Val Met Thr His Leu Arg Val IIe Tyr Glu Arg Met Asn Gln Ser 530 535 540
- Leu Ser Leu Leu Tyr Asn Val Pro Ala Val Ala Glu Glu Ile Gln Asp 545 550 555 560
- Glu Val Asp Glu Leu Leu Gln Lys Glu Gln Asn Tyr Ser Asp Val 565 570 575
- Leu Ala Asn Met IIe Ser Glu Pro Arg IIe Ser Tyr Gly Asn Asp Ala 580 585 590
- Leu Met Pro Ser Leu Thr Glu Thr Lys Thr Thr Val Glu Leu Leu Pro 595 . 600 605
- Val Asn Gly Glu Phe Ser Leu Asp Asp Leu Gln Pro Trp His Ser Phe 610 620
- Gly Ala Asp Ser Val Pro Ala Asn Thr Glu Asn Glu Val Glu Pro Val 625 630 635 640
- Asp Ala Arg Pro Ala Ala Asp Arg Gly Leu Thr Thr Arg Pro Gly Ser 645 650 655
- Gly Leu Thr Asn lle Lys Thr Glu Glu lle Ser Glu Val Lys Met Asp 660 665 670

Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys Leu 675 680 685

Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala IIe IIe Gly 690 695 700

Leu Met Val Gly Gly Val Val IIe Ala Thr Val IIe Val IIe Thr Leu 705 710 715 720

Val Met Leu Lys Lys Gln Tyr Thr Ser IIe His His Gly Val Val 725 730 735

Glu Val Asp Ala Ala Val Thr Pro Glu Glu Arg His Leu Ser Lys Met 740 745 750

Gin Gin Asn Gly Tyr Glu Asn Pro Thr Tyr Lys Phe Phe Glu Gin Met 755 760 765

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Val Met Leu Lys Lys Lys 1 5